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**Notice of Allowability**

Application No.

10/731,270

Examiner

Thinh T. Nguyen

Applicant(s)

KIM, HYUN-CHUL

Art Unit

2818

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/11/2005.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>12/8/2003</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                                | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

David Nelms  
 Supervisory Patent Examiner  
 Technology Center 2800

**DETAILED ACTION**

1. Applicant election of claim 1-20 for prosecution without traverse in the communication with the Office on 8/11/2005 is acknowledged,

**Examiner's Amendment.**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

A/ Cancel non-elected claims 21-28.

B/ Change the title to: -- **FUSE BOX SEMICONDUCTOR DEVICE** --

**Reason for allowance**

3. Claims 1-20 are allowed. The following is an examiner's statement of reason for allowance:

**I/ Group I: Claims 1-9:**

Claims 1-9 are allowed because none of the references of record teaches or suggests the claimed **FUSE BOX SEMICONDUCTOR DEVICE** having the limitations:

--" a lower line placed in the fuse region of the semiconductor substrate, and having a first region and a second region; an upper line placed on an upper part of the lower line to overlap the first region of the lower line; and a fuse placed on an upper part of the upper line, and electrically connected to the second region of the lower line and the upper line. "--

and all other limitations of claim 1.

## **II/ Group II: Claims 10-20:**

Claims 10-20 are allowed because none of the references of record teaches or suggests the claimed **FUSE BOX SEMICONDUCTOR DEVICE** having the limitations:

--" a first lower line placed on one side of the fuse region that extends toward an outside part of the fuse region, the first lower line having a first region adjacent to a periphery of the fuse region and a second region close to a center of the fuse region; a second lower line placed on another side of the fuse region that extends toward the outside part of the fuse region, the second lower line having a first region adjacent to the periphery of the fuse region and a second region close to the center of the fuse region, the first lower line and the second lower line symmetrical to each other about a center of the fuse region; a first upper line placed to overlap the first region of the first lower line; a second upper line placed to overlap the first region of the second lower line; a first fuse that is electrically connected to the second region of the first lower line and that is in contact with the upper surface of the first upper line; and a second fuse that is

electrically connected to the second region of the second lower line and that is in contact with the upper surface of the second upper line. "--  
and all other limitations of claim 10.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

### **Conclusion**

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Srikrishnan (US patent 5,389,814) discloses an electrically blowable fuse structure for organic insulator

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thinh T Nguyen whose telephone number is 571-272-1790. The examiner can normally be reached on Monday-Friday 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached at 571-272-1787. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9319 for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval [PAIR] system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)

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